

REMARKS

Claims 22-27 and 46 are pending in the application. By this Amendment, non-elected claims 1-21 and 28-45 are canceled without prejudice or disclaimer. The Office Action indicates that claims 22-27 are allowable and that claim 46 is rejected. Reconsideration of the claim 46 rejection in view of the following remarks is respectfully requested.

Entry of the amendments/remarks is proper under 37 C.F.R. §1.116 since the amendments: (a) place the application in condition for allowance (for the reasons discussed herein); (b) do not raise any new issues requiring further search and/or consideration (since the amendments amplify issues previously discussed throughout the prosecution); (c) satisfy a requirement of form asserted in the previous Office Action; (d) do not present any additional claims without canceling a corresponding number of finally rejected claims; and (e) place the application in better form for appeal should an appeal be necessary. The amendments are necessary and were not earlier presented because they are made in response to arguments raised in the Final Rejection. Entry of the amendments is thus respectfully requested.

Claim 46 is rejected under 35 U.S.C. 102(e) as being anticipated by patent publications US 2002/0005803 A1 and US 2002/0053982 to Kevin W. Baugh *et al.* (collectively, the "Baugh publications"). The rejection is respectfully traversed.

The Baugh publications are both directed to variations of a passive coherent location (PCL) system. Figure 1 of each of the Baugh publications, discloses a general embodiment of a PCL system. PCL systems include a receiver subsystem that receives reference signals from an uncontrolled transmitter, such as a radio or television antenna, and scattered transmissions originating from the uncontrolled transmitter and scattered by an object. (*See* 2002/0005803 Abstract, para. 16; 2002/0053982 Abstract, para. 8.)

The present application provides an adaptive broadcast radar system for tracking targets. Claim 46 for the present invention requires "a transmitter comprising a first plurality of sub-apertures, wherein each aperture codes a signal waveform with data." In the present invention, knowledge of the radar waveform codes enables the techniques by which both transmitter and receiver beamforming can be controlled by any user within the field of view of the transmitter. Waveform coding is not discussed in either of the Baugh publications. Thus, Applicant respectfully submits that claim 46 is distinguishable over the Baugh Publications on at least this

basis. Applicant therefore respectfully requests withdrawal of the rejection of claim 46 under 35 U.S.C. § 102(e).

Claim 46 is also rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,534,868 to Gjessing *et al* ("Gjessing"). Applicant's previous remarks dated April 30, 2003, inadvertently quoted from claim 1, rather than claim 46, of the present application. The distinction between Gjessing and either claim, however, remains the same. As noted in Applicant's previous remarks, Gjessing describes a system and method for the detection and measurement of atmospheric air movement irregularities by means of electromagnetic waves emitted from a transmitter and received by a receiver. Specifically, Fig. 1 of Gjessing depicts a "transmitter generally denoted 1 with an antenna or antennas 1A and 1B [that] cooperates with a receiver generally denoted 2 having an antenna or antennas 2A. Thus, two or more antennas (apertures) can be provided at the transmitter 1 and/or the receiver 2." (Col. 3, ln. 43-48). However, the system of Gjessing, as shown in Fig. 1, also requires a separately broadcast reference frequency: "For this demodulation, a reference frequency F_{REF} is transmitted by means of a separate channel or path in which antennas 13 and 23 are incorporated." (Col. 4, ln. 21-24). The requirement in Gjessing for a "common reference independent of" an irradiated energy beam is also reiterated in all claims of the issued patent.

In contrast, claim 46 of the present application recites a signal processor that "generates a transmit beam signal according to said data within each signal waveform" (emphasis added). Unlike Gjessing, the invention of the present application does not use a reference signal that is independent of the waveforms emitted from the transmitter. Thus, Gjessing's requirement for a reference frequency independent of an irradiated beam fails to disclose a feature of the present invention, as stated in claim 46, in that the system generates a signal according to data within each signal waveform. Therefore, Applicant respectfully submits that claim 46 is distinguishable over Gjessing. Applicant therefore respectfully requests withdrawal of the rejection of claim 46 under 35 U.S.C. § 102(b).

Application No. 09/994,921

Response dated October 15, 2003

In Reply to Office Action mailed July 15, 2003

CONCLUSION

In view of the foregoing, Applicants submit that this application is in condition for allowance, and such disposition is earnestly solicited. If the Examiner believes that the prosecution of this case might be advanced by discussing the application with Applicants' representative, in person, or over the telephone, we would welcome the opportunity to do so.

EXCEPT for fees payable under 37 CFR §1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application, including fees due under 37 CFR §1.16 and 1.17 which may be required, including any required extension of time fees, or credit, any overpayment to deposit account No. 50-1349. This paragraph is intended to be a constructive petition for extension of time in accordance with 37 CFR §1.136(a)(3).

Respectfully submitted,

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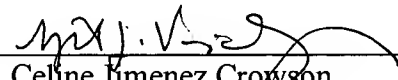
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